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UTILITY PATENT APPLICATION		Attorney Docket No.			520.43241X00					
		First Inver	First Inventor		MIYAUCHI, AKIHIRO					
TRANSMITTAL (Only for new popprovisional applications under 37 CFR 1 53(b))				FUNCTIONING SUBSTRATE WITH A GROUP OF COLUMNAR MICRO PILLARS AND ITS MANUFACTURING METHOD						
(Only for new nonprovisional applications and or or N. 1.33(b))			4-71 - b - l At-	111111111111111111111111111111111111111	<u> </u>		0			
		Express N	Aail Label No.	Mail :	Stop Patent A	pplication	400			
APPLICATION ELEMENTS SEE MPEP chapter 600 concerning utility patent application contents			ADDRESS	ADDRESS TO: Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450			9593			
Fee Transmittal Form (e.g., (Submit an original and a du)	7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)									
 Applicant claims small entity status. See 37 CFR 1.27. 			fif applicat	if applicable, all necessary)						
3. Specification	3. Specification [Total Pages: 66]				b. Specification Sequence Listing on:					
(preferred arrangement set	forth below)		i	☐ CD-ROM	or CD-R (2 cc	opies); or				
-Descriptive title of the inver -Cross Reference to Related	ii	ii 🗖 paper								
-Statement Regarding Fed s -Reference to sequence listi	c. Statements verifying identity of above copies									
or a computer program listing -Background of the Invention	•		A	ACCOMPANYING APPLICATION PARTS						
-Brief Summary of the Invention -Brief Description of the Drawings (if filed) -Detailed Description -Claim(s)			9. Ass							
			4							
-Abstract of the Disclosure				en tnere is an a glish Translatio		if applicable)				
4. Drawing(s) (35 U.S.C. 113) [Total Sheets: 11] 5. Oath or Declaration [Total Sheets:]			12. Info	rmation Disclo tement (IDS)/P	sure	Copies of ID	S Citations			
a Newly executed (original o	•	1	13. Pre	liminary Amen						
b Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed)				14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized)						
i Deletion of Inventor(S)			(if fo	(if foreign priority is claimed)						
Signed statement attached deleting inventor(s) Named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)			(b)((b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.						
6. Application Data Sheet. Se	e 37 CFR 1.76		17. 🛭 Oth	er: Claim Fo	r Priority; I	Figs.1-17				
18. If a CONTINUING APPLICAT	ION, check appropriate bo	ox, and sup	ply the requisite	information b	elow and in	a preliminary a	amendment,			
or in an Application Data Sheet u	nder 37 CFR 1.76:					-				
Continuation Divisional Continuation-in-part (CIP) of prior application No.:										
Prior application information: Exa For CONTINUATION OR DIVISIONAL	aminer: Art Unit: _ _ APPS only: The entire disc	losure of the	e prior application	, from which a	n oath or de	claration is supp	lied under			
Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.										
The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS										
☐ Customer Number ☐ 020457 OR ☐ Correspondence address below										
Name ANTONELLI, TERRY, STOUT & KRAUS, LLP										
Address										
		State			Zip Code					
Country Telepi Name (Print/Type) Alan E. Schiavelli			(703) 312-6600 Registration No. (Fax	(703) 312-666	56			
Name (Print/Type) Alan E. Schi	regisuaduri IVO. (Additiey/Agen	Date	32,087 October 30, 2	2003					

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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FEE TRANSMITTAL for FY 2004			Complet if Known						
			Application Number						
					October 30, 2003				
			First Named Inventor		MIYAUCHI, AKIHIRO				
Effective 10/01/2003. Patent fees are subject to annual revision.			Examiner Name						
			Art Unit						
Applicant claims small entity status. See 37 CFR 1.27			Docke	+ No	520.43241X00				
TOTAL AMOUNT OF PAYMENT (\$) 942.00									
METHOD OF PAYMENT (check all that apply)			FEE CALCULATION (continued)						
☐ Check	3. A	B. ADDITIONAL FEES							
☑ Deposit Account:									
Deposit			area Entity Small Entity						
Account 01-2135 Number		arge Entity Small Entity				Fee Paid			
Deposit	Fee Code	Fee	Fee Code	Fee (\$)	Fee Description				
Account Antonelli, Terry, Stout & Kraus, LLP	1051	130	2051		Surcharge – late filing fee or oath				
The Director is authorized to: (check all that apply) ☐ Charge fee(s) indicated below ☐ Credit any overpayments	1052	50	2052		Surcharge – late provisional filing fee or				
Charge lee(s) indicated below		400			cover sheet				
☐ Charge any additional fee(s) during the pendency of this application.	1053 1812	130 2,520	1053 1812		Non-English specification For filing a request for ex parte reexamination				
☐ Charge fee(s) indicated below, except for the filing fee		920*	1804		Requesting publication of SIR prior to				
to the above-identified deposit account.		-			Examination action				
FEE CALCULATION	1805	1,8401	1805		Requesting publication of SIR after Examiner action	5			
BASIC FILING FEE Large Entity Small Entity	1251	110	2251	55	Extension for reply within first month				
Fee Fee Fee Fee Description Fee Paid	1252	420	2252	210	Extension for reply within second month				
Code (\$) Code (\$) 1001 770 2001 385 Utility filing fee 770	1253	950	2253	475	Extension for reply within third month				
1002 340 2002 170 Design filing fee	1254	1,480	2254		Extension for reply within fourth month				
1003 530 2003 265 Plant filing fee	1255	2,010	2255		Extension for reply within fifth month	ļ			
1004 770 2004 385 Reissue filing fee	1401 1402	330 330	2401 2402		Notice of Appeal				
1005 160 2005 80 Provisional filing fee	1403	290	2402		Filing a brief in support of an appeal Request for oral hearing				
SUBTOTAL (1)	1451	1,510	1451		Petition to institute a public use proceeding				
	1452	110	2452		Petition to revive – unavoidable				
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Fee from	1453	1,330	2453	665	Petition to revive – unintentional				
Extra Claims below Fee Paid	1501	1,330	2501	665	Utility issue fee (or reissue)				
Total Claims 19 -20** = 0.00 x 18.000 = 0.00	1502	480	2502	240	Design issue fee				
Indep. 5 -3** = 2 x 86.00 = 172.00	1503	640	2503	320	Plant issue fee				
Claims Multiple Dependent 290.00 = 0.00	1406	130	1460		Petitions to the Commissioner				
Large Entity Small Entity	1807	50	1807		Processing fee under 37 CFR 1.17(q)				
Fee Fee Fee <u>Fee Description</u>	1806	180	1806		Submission of Information Disclosure Stmt				
Code (\$) Code (\$) 1202 18 2202 9 Claims in excess of 20	8021	40	8021		Recording each patent assignment per property (times number of properties)				
1201 86 2201 43 Independent claims in excess of 3	1809	770	2809		Filing a submission after final rejection (37 CFR § 1.129(a))				
1203 290 2203 145 Multiple dependent claim, if not paid 1204 86 2204 43 ** Reissue independent claims	1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))				
over original patent 1205 18 2205 9 ** Reissue claims in excess of 20	1801	770	2801		Request for Continued Examination (RCE)				
and over original patent	1802		1802	900	Request for expedited examination				
SUBTOTAL (2) \$ 172.00					of a design application				
**or number previously paid, if greater, For Reissues, see above.	Other	Other fee (specify)							
	*Red	Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$)				0.00			
SUBMITTED BY					Complete (if applicable)				
	Parriet	ation No							

Name (Print/Type)

Alan E. Schlavelli

Registration No. (Attorney/Agent)

32,087

Telephone

703-312-6600

Date

10/30/2003

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